



# STIC EIC 2100

## Search Request Form

161628

117

Today's Date:

8-1-5

What date would you like to use to limit the search?

Priority Date: 11/23/2000 Other:

Name HANDA THAI  
AU 2161 Examiner # 79864  
Room # 3029 Phone 2-4029  
Serial # 09/989,970

Format for Search Results (Circle One):

 PAPER  DISK  EMAIL

Where have you searched so far?

USP DWPI EPO JPO ACM IBM TDB  
IEEE INSPEC SPI Other \_\_\_\_\_Is this a "Fast & Focused" Search Request? (Circle One)  YES  NO

A "Fast & Focused" Search is completed in 2-3 hours (maximum). The search must be on a very specific topic and meet certain criteria. The criteria are posted in EIC2100 and on the EIC2100 NPL Web Page at <http://ptoweb/patents/stic/stic-2100.htm>.

What is the topic, novelty, motivation, utility, or other specific details defining the desired focus of this search? Please include the concepts, synonyms, keywords, acronyms, definitions, strategies, and anything else that helps to describe the topic. Please attach a copy of the abstract, background, brief summary, pertinent claims and any citations of relevant art you have found.

Determining whether relevant information is contained in the document  
generating a document extract if the document contains relevant  
information, extracting a portion of the document and  
original  
Replacing the document in the step with the document extract

Please see the attached claims.

STIC Searcher C-wong Phone 272-3513  
Date picked up 8-7 Date Completed 8-10-5



File 696:DIALOG Telecom. Newsletters 1995-2005/Jul 29  
(c) 2005 Dialog  
File 15:ABI/Inform(R) 1971-2005/Aug 01  
(c) 2005 ProQuest Info&Learning  
File 98:General Sci Abs/Full-Text 1984-2004/Dec  
(c) 2005 The HW Wilson Co.  
File 112:UBM Industry News 1998-2004/Jan 27  
(c) 2004 United Business Media  
File 141:Readers Guide 1983-2004/Dec  
(c) 2005 The HW Wilson Co  
File 484:Periodical Abs Plustext 1986-2005/Jul W4  
(c) 2005 ProQuest  
File 608:KR/T Bus.News. 1992-2005/Aug 01  
(c) 2005 Knight Ridder/Tribune Bus News  
File 813:PR Newswire 1987-1999/Apr 30  
(c) 1999 PR Newswire Association Inc  
File 613:PR Newswire 1999-2005/Aug 01  
(c) 2005 PR Newswire Association Inc  
File 635:Business Dateline(R) 1985-2005/Jul 30  
(c) 2005 ProQuest Info&Learning  
File 810:Business Wire 1986-1999/Feb 28  
(c) 1999 Business Wire  
File 610:Business Wire 1999-2005/Aug 01  
(c) 2005 Business Wire.  
File 369:New Scientist 1994-2005/May W4  
(c) 2005 Reed Business Information Ltd.  
File 370:Science 1996-1999/Jul W3  
(c) 1999 AAAS  
File 20:Dialog Global Reporter 1997-2005/Aug 01  
(c) 2005 Dialog  
File 624:McGraw-Hill Publications 1985-2005/Aug 01  
(c) 2005 McGraw-Hill Co. Inc  
File 634:San Jose Mercury Jun 1985-2005/Jul 30  
(c) 2005 San Jose Mercury News  
File 647:CMP Computer Fulltext 1988-2005/Jul W3  
(c) 2005 CMP Media, LLC  
File 674:Computer News Fulltext 1989-2005/Jul W4  
(c) 2005 IDG Communications

Set	Items	Description
S1	225558	DISPLAC? OR SUBROGAT?
S2	9831039	REPLAC??? ? OR REPLACEMENT? OR SUBSTITUT???? ? OR RE() (PLA- C??? ? OR PLACEMENT? ?) OR EXCHANG? OR SWAP? OR SWITCH? OR SU- PPLANT?
S3	107461	FULLTEXT? OR (FULL OR COMPLETE) ()TEXT
S4	16162575	DOCUMENT? ? OR ARTICLE? ? OR RECORD? ? OR REPORT? ? OR MES- SAGE? ?
S5	6537189	ABSTRACT? ? OR SUMMARY? OR SUMMARIES OR SUMMATION? OR SHOR- TEN? OR SHORTER? OR ABBREVIAT? OR REDUC??? ? OR REDUCTION?
S6	2340858	ABRIDG? OR CONDENS??? ? OR PRECIS OR SYNOPSI? OR CAPSUL? OR RECAP? ? OR BRIEF?? ? OR DIGEST? ?
S7	192679	EXTRACT? ?
S8	685688	S1:S2(10N)S3:S4
S9	10935	S8(10N)S5:S7
S10	6275314	SEARCH? OR RETRIEV? OR HARVEST? OR QUERY? OR QUERIE? OR MI- NE? ? OR MINING OR DATAMIN? OR TEXTSEARCH? OR REQUEST?
S11	363430	IR
S12	1131	S11(3N)S4
S13	2	S9(S)S12
S14	357	S9(S)S10:S11

S15 434498 DATA() (BASE? ? OR SET? ? OR BANK? ? OR STORE? OR SYSTEM? ?  
OR COLLECTION? OR LIBRAR? OR DEPOSIT? OR REPOSIT? OR WAREHOUS-  
E? OR WARE? ? OR MART? ?)  
S16 3057 DATAWAREHOUS? OR DATAMART?  
S17 1092373 DATABASE? OR DATASET? OR DATABANK? OR DATASTORE? OR DATASY-  
STEM? OR DATACOLLECTION? OR DATALIBRAR? OR DATADEPOSIT? OR DA-  
TAREPOSIT?  
S18 167 S9(S)S15:S17  
S19 345734 S1:S2(5N)S3:S4  
S20 2789 S19(5N)S5:S7  
S21 120 S20(S)S10:S11  
S22 58 S20(S)S15:S17  
S23 28 S21 AND S22  
S24 5 S23/2001:2005  
S25 23 S23 NOT S24  
S26 19 RD (unique items)  
S27 3312880 REPLAC??? ? OR REPLACEMENT? OR SUBSTITUT? OR RE() (PLAC??? ?  
OR PLACEMENT? ?) OR SWAP? OR SUPPLANT?  
S28 34124 (S1 OR S27)(5N)S3:S4  
S29 2148 S28(S)S5:S7  
S30 236 S29(S)S10:S11  
S31 100 S29(S)S15:S17  
S32 102 S31 OR S13  
S33 41 S32/2001:2005  
S34 52 S32 NOT (S33 OR S23)  
S35 46 RD (unique items)

**35/3,K/3 (Item 3 from file: 15)**  
DIALOG(R)File 15:ABI/Inform(R)  
(c) 2005 ProQuest Info&Learning. All rts. reserv.

02070592 61051647  
**ETL provides the keys to keeping data relevant, available**  
Steinacher, Scott  
InfoWorld v22n39 PP: 74-76 Sep 25, 2000  
ISSN: 0199-6649 JRNL CODE: IFW  
WORD COUNT: 1305

...TEXT: is preferable because it reduces response times and enhances ease  
of use.

Before loading a **data mart**, programmers typically aggregate data.  
Aggregation routines **replace** numerous detail **records** with relatively  
few **summary** records. For example, suppose that a year's worth of sales  
data is stored in several thousand records in a normalized **database**. }

Through aggregation, this data is transformed into fewer summary records  
that will be written to...

**35/3,K/6 (Item 6 from file: 15)**  
DIALOG(R)File 15:ABI/Inform(R)  
(c) 2005 ProQuest Info&Learning. All rts. reserv.

01539058 01-90046  
**PubMed initiates new MEDLINE era**  
O Leary, Mick  
Database v20n6 PP: 70-72 Dec 1997  
ISSN: 0162-4105 JRNL CODE: DTB  
WORD COUNT: 1436

...TEXT: other Web medical data. And it is free.

#### MEDLINE PLUS

PubMed has the complete MEDLINE **database**, from 1966 forward. It is in a single file (though date limiting is available), and is updated weekly. It includes PreMEDLINE records, which contain citation and **abstract**, but which have not been indexed. These are added daily, and are eventually **replaced** by fully indexed **records**.

PubMed also has a small class of records which do not appear in other versions...

File 348:EUROPEAN PATENTS 1978-2005/Jul W04  
 (c) 2005 European Patent Office  
 File 349:PCT FULLTEXT 1979-2005/UB=20050728,UT=20050721  
 (c) 2005 WIPO/Univentio  
 File 324:German Patents Fulltext 1967-200529  
 (c) 2005 Univentio

Set	Items	Description
S1	349527	DISPLAC? OR SUBROGAT?
S2	1909686	REPLAC??? ? OR REPLACEMENT? OR SUBSTITUT???? ? OR RE() (PLA-C??? ? OR PLACEMENT? ?) OR EXCHANG? OR SWAP? OR SWITCH? OR SU-PPLANT?
S3	1704	FULLTEXT? OR (FULL OR COMPLETE) ()TEXT
S4	2520974	DOCUMENT? ? OR ARTICLE? ? OR RECORD? ? OR REPORT? ? OR MES-SAGE? ?
S5	2153694	ABSTRACT? ? OR SUMMARY? OR SUMMARIES OR SUMMATION? OR SHOR-TEN? OR SHORTER? OR ABBREVIAT? OR REDUC??? ? OR REDUCTION?
S6	1235167	ABRIDG? OR CONDENS??? ? OR PRECIS OR SYNOPSI? OR CAPSUL? OR RECAP? ? OR BRIEF?? ? OR DIGEST? ?
S7	211399	EXTRACT? ?
S8	85253	S1:S2(10N)S3:S4
S9	2798	S8(10N)S5:S7
S10	2363105	SEARCH? OR RETRIEV? OR HARVEST? OR QUERY? OR QUERIE? OR MI-NE? ? OR MINING OR DATAMIN? OR TEXTSEARCH? OR REQUEST?
S11	189274	IR
S12	2541	S11(3N)S4
S13	7	S9(20N)S11:S12
S14	2633	S8(10N)S5:S6
S15	126	S9/TI,AB
S16	1689	IC='G06F-007/00'
S17	6	S9 AND S16
S18	42	S15 AND AC=US/PR
S19	36	S18 AND AY=(1976:2000)/PR
S20	102	S15 AND PY=1976:2000
S21	36	S19 NOT (S13 OR S17)
S22	36	IDPAT (sorted in duplicate/non-duplicate order)
S23	36	IDPAT (primary/non-duplicate records only)
S24	56	S20 NOT SWITCH?
S25	38	S24 NOT (S13 OR S17 OR S23)
S26	38	IDPAT (sorted in duplicate/non-duplicate order)
S27	37	IDPAT (primary/non-duplicate records only)
S28	184466	IC=G06F
S29	424	S14 AND S28
S30	48	S29/TI,AB,CM
S31	38	S30 NOT (S13 OR S17 OR S23 OR S15)
S32	109088	DATABASE? OR DATASET? OR DATABANK? OR DATASTORE? OR DATASY-STEM? OR DATACOLLECTION? OR DATALIBRAR? OR DATADEPOSIT? OR DA-TAREPOSIT?
S33	79	DATAWAREHOUSE? OR DATAMART?
S34	195617	DATA() (BASE? ? OR SET? ? OR BANK? ? OR STORE? OR SYSTEM? ? OR COLLECTION? OR LIBRAR? OR DEPOSIT? OR REPOSIT? OR WAREHOUS-E? OR WARE? ? OR MART? ?)
S35	17402	IC='G06F-017/30':IC='G06F-017/32'
S36	77	S14 AND S35
S37	194	S9(20N)S10:S11
S38	58	S37 NOT SWITCH?
S39	66	S14(20N)S32:S34
S40	171	S36 OR S38:S39
S41	141	S40 NOT (S13 OR S17 OR S23 OR S15 OR S25 OR S31)
S42	112	S41 AND AC=US/PR
S43	87	S42 AND AY=(1976:2000)/PR

S44 67 S41 AND PY=1976:2000  
S45 99 S43:S44  
S46 99 IDPAT (sorted in duplicate/non-duplicate order)  
S47 99 IDPAT (primary/non-duplicate records only)  
?

17/5, K/5 (Item 5 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00574703 \*\*Image available\*\*

**ABBREVIATING AND CONDENSING TEXT IN COMPUTER SOFTWARE**

**ABREVIATION ET CONDENSATION DE TEXTE DANS UN LOGICIEL**

Patent Applicant/Assignee:

KUDROLLIS SOFTWARE INVENTIONS PVT LTD,

Inventor(s):

KUDROLLI Abdus Samad,

KUDROLLI Parvez,

KUDROLLI Feroz,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200038076 A1 20000629 (WO 0038076)

Application: WO 99IN64 19991116 (PCT/WO IN9900064)

Priority Application: IN 98827 19981221

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

CA AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

Main International Patent Class: G06F-015/00

International Patent Class: G06F-007/00 ; G06F-017/00; G06F-017/21; G06F-017/24; G06F-017/27

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 28220

**English Abstract**

This invention relates to text abbreviation methods in computer software. In particular, abbreviation of text into predetermined field widths (with single or multiple rows) or files, utilizing an operating system (121), an application program (122), and an abbreviation control data program (123), along with combinations of prioritized shortening methods in preference to or in addition to glossaries of acronyms and word abbreviations using an abbreviation function (127) are disclosed. The special handling of segments of input contained within pairs of pre-defined characters, as well as omission of spaces, and conversion of enumeration word or word sequences to numbers utilizing an abbreviation data file (124), a parameters sets file (125), and a parameters list (126), are also disclosed. The omission of spaces and phonetically less significant characters condenses word sequences, which saves display space and enables the use of larger type sizes.

**French Abstract**

L'invention concerne des procedes d'abreviation de texte dans un logiciel. L'invention concerne plus particulierement l'abreviation de texte selon des largeurs de zones predeterminees (avec des rangees simples ou multiples) ou de fichiers, a l'aide d'un systeme d'exploitation (121), d'un programme d'application (122) et d'un programme de donnees de commande d'abreviation (123) ainsi que des combinaisons de procedes permettant de raccourcir le texte preferes au detriment de ou en sus de glossaires classiques d'acronymes et d'abreviation de mots grace a une fonction d'abreviation (127). Ces procedes consistent a manipuler des segments d'entree se trouvant dans des paires de caracteres predefinis, a omettre les espaces ou la ponctuation predefinie, a convertir une enumeration de mots ou une sequence de mots en nombres utilisant un fichier donnees d'abreviation

(124). L'invention concerne aussi un fichier de jeux de parametres (125) et une liste de parametres (126). L'omission d'espaces et des caracteres moins signifiants en termes de phonetique permettent d'economiser de l'espace d'affichage et d'utiliser des equipements de dimensions plus grandes.

International Patent Class: G06F-007/00 ...

Fulltext Availability:

Detailed Description

Detailed Description

... file 1282 to keep

5 track of reduction scope length of the acronyms or word abbreviations found and held for need based replacement . The records in reduction scope file are sequenced in the descending order of reduction scope length, the objective being to achieve the required reduction with the least number 10 of need based replacements in the records of the shortening file as referenced from the first few records of the reduction scope file.

If the...common Match subroutine

(Method 29) is called for compulsory and need based acronym and word abbreviation search, replacement or retention 15a.

In file:Shrtn, if a record is found with field:ShSWrd=,And, and field:ShSWrd in preceding and succeeding records does...

...the following specific steps,  
designated (a) to (z), together with relevant explanations and notes.

a) Replacing enumeration words with 'abbreviations' .

Accessing file:Shrtn and reading each record .

If ShRS=1 accessing file:AbData and locating and reading any record with AbAR=2...replaced in upper case  
to avoid confusion with subsequent abbreviation methods.

Before proceeding further in Shorten subroutine it is necessary to search for records having sequences replaced in upper case with ShCap=10 or 11 and to convert them back to  
- 76...

?

23/5, K/4 (Item 4 from file: 348)  
DIALOG(R) File 348:EUROPEAN PATENTS  
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00957350

Method for transmitting alternative messages in a TDMA system with discontinuous transmission

Verfahren zur Übertragung alternativer Nachrichten in einem TDMA-System mit diskontinuierlicher Übertragung

Methode de transmission de messages alternatifs dans un système AMRT a transmission discontinue

PATENT ASSIGNEE:

LUCENT TECHNOLOGIES INC., (2143720), 600 Mountain Avenue, Murray Hill, New Jersey 07974-0636, (US), (Proprietor designated states: all)

INVENTOR:

Kahn, Colin Leon, 38 Cross Road, Cedar Knolls, New Jersey 07950, (US)  
Turner, Michael D., 33 Elm No. 9, Madison, New Jersey 07940, (US)

LEGAL REPRESENTATIVE:

Buckley, Christopher Simon Thirsk et al (28912), Lucent Technologies (UK) Ltd, 5 Mornington Road, Woodford Green, Essex IG8 0TU, (GB)

PATENT (CC, No, Kind, Date): EP 868037 A1 980930 (Basic)  
EP 868037 B1 020320

APPLICATION (CC, No, Date): EP 98301801 980311;

PRIORITY (CC, No, Date): US 821479 970321

DESIGNATED STATES: DE; FI; FR; GB; SE

INTERNATIONAL PATENT CLASS: H04B-007/26

CITED PATENTS (EP B): WO 91/02436 A; WO 96/33585 A; GB 2290198 A; US 5581548 A

ABSTRACT EP 868037 A1

Alternative messages are transmitted in a time slot (e.g.3) of a frame of a time division multiple access communications system during periods of silence or when no speech data is present. When an absence of voice is detected, an **abbreviated message** (60) is **substituted** for a longer **message** in the time slot (31). In subsequent frames, the **shorter message** (60) is also **substituted** for the longer **message** until voice is detected.

ABSTRACT WORD COUNT: 72

NOTE:

Figure number on first page: 3

LEGAL STATUS (Type, Pub Date, Kind, Text):

Change: 000913 A1 Title of invention (German) changed: 20000724

Application: 980930 A1 Published application (A1with Search Report ;A2without Search Report)

Lapse: 030723 B1 Date of lapse of European Patent in a contracting state (Country, date): DE 20020621, FI 20020320, SE 20020620,

Lapse: 021204 B1 Date of lapse of European Patent in a contracting state (Country, date): FI 20020320, SE 20020620,

Grant: 020320 B1 Granted patent

Change: 000913 A1 Title of invention (English) changed: 20000724

Change: 000913 A1 Title of invention (French) changed: 20000724

Lapse: 020911 B1 Date of lapse of European Patent in a contracting state (Country, date): SE 20020620,

Oppn None: 030312 B1 No opposition filed: 20021223

Examination: 980930 A1 Date of filing of request for examination:  
980320  
Examination: 981125 A1 Date of despatch of first examination report:  
981008  
Change: 990414 A1 Title of invention (German) (change)  
Change: 990414 A1 Title of invention (English) (change)  
Change: 990414 A1 Title of invention (French) (change)  
Change: 990609 A1 Designated Contracting States (change)  
LANGUAGE (Publication, Procedural, Application): English; English; English

FULLTEXT AVAILABILITY:

Available	Text	Language	Update	Word Count
	CLAIMS A	(English)	199840	418
	CLAIMS B	(English)	200212	235
	CLAIMS B	(German)	200212	210
	CLAIMS B	(French)	200212	294
	SPEC A	(English)	199840	1754
	SPEC B	(English)	200212	1934
Total word count - document A				2172
Total word count - document B				2673
Total word count - documents A + B				4845

...ABSTRACT or when no speech data is present. When an absence of voice is detected, an **abbreviated message** (60) is **substituted** for a longer **message** in the time slot (31). In subsequent frames, the **shorter message** (60) is also **substituted** for the longer **message** until voice is detected.

23/5, K/25 (Item 25 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT  
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00878841 \*\*Image available\*\*

METHOD AND SYSTEM FOR ACCELERATING THE DELIVERY OF CONTENT IN A NETWORKED ENVIRONMENT

PROCEDE ET SYSTEME POUR ACCELERER L'EXPEDITION DES CONTENUS DANS UN ENVIRONNEMENT RESEAU

Patent Applicant/Assignee:

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Inventor(s):

KAUSIK Balas Natarajan, 18079 Reed Knoll Road, Los Gatos, CA 95033, US,

Legal Representative:

YANG Joseph (et al) (agent), Skadden, Arps, Slate, Meagher & Flom LLP, 525 University Avenue, Palo Alto, CA 94301, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200213037 A1 20020214 (WO 0213037)

Application: WO 2001US24936 20010808 (PCT/WO US0124936)

Priority Application: US 2000634134 20000808

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW  
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR  
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: G06F-015/16

Publication Language: English

Filing Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 6217

#### English Abstract

Many documents transmitted in a network environment contain substantial overlap with old versions of the same (or related) documents. For example, "current news" web page may be updated hourly on a web site so that a new story is added and the oldest story is dropped. In such cases, it is inefficient to send the updated document in its entirety to a user requesting the new document but who had previously received the old page. Instead, the new **document** is first sent to a **condenser** (200), which **replaces** the unchanged portions of the new **document** with pointers to the old document. In this way, only the changed portions of the document need to be transmitted to the user in their entirety. The condensed document is bound to the requesting user via a token such as a cookie generated by the condenser, and the condensed document and cookie are sent to the user. The user uses assembly software corresponding to the condensing process to reassemble the new document from the condensed document and the old document. The foregoing may be implemented on an individual user basis, as well as for classes of users.

#### French Abstract

Beaucoup de documents transmis dans un environnement reseau et les anciennes versions de ces memes documents (ou de documents en rapport avec ceux-ci) se recourent sensiblement. Par exemple, la page Web d'<= informations d'actualite >= d'un site Web peut etre mise a jour toutes les heures, afin d'ajouter une nouvelle histoire qui remplace la plus ancienne. Dans ce cas, il est inefficace d'expedier la totalite du document mis a jour a un utilisateur l'ayant sollicite, s'il a deja recu auparavant l'ancienne page. Au lieu de cela, le nouveau document Web est d'abord envoye a un condenseur (200), qui remplace les parties inchangées du nouveau document par des pointeurs renvoyant a l'ancien document. Ainsi, seules les parties modifiees du document doivent etre entierement transmises a l'utilisateur. Le document condense est mis en rapport avec l'utilisateur l'ayant sollicite au moyen d'un jeton d'identification, tel qu'un petit gateau genere par le condenseur, qui lui est expedie avec le document condense. L'utilisateur emploie un programme d'assemblage correspondant au procede permettant de condenser pour rassembler le nouveau document a partir du document condense et de l'ancien document. Le procede decrit peut etre applique pour un utilisateur individuel ou pour des categories d'utilisateurs.

#### Legal Status (Type, Date, Text)

Publication 20020214 A1 With international search report.

Publication 20020214 A1 Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

Examination 20020906 Request for preliminary examination prior to end of 19th month from priority date

#### English Abstract

...requesting the new document but who had previously received the old page. Instead, the new **document** is first sent to a **condenser** (200), which **replaces** the unchanged portions of the new **document** with pointers to the old document. In this way, only the changed portions of the...

?

? t47/5, k/40, 42, 54

**47/5, K/40 (Item 40 from file: 349)**  
DIALOG(R) File 349:PCT FULLTEXT  
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00910813 \*\*Image available\*\*

**INTERACTIVE DISPLAY OF A DOCUMENT SUMMARY**  
**AFFICHAGE INTERACTIF D'UN RESUME DE DOCUMENT**

**Patent Applicant/Assignee:**

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US (Nationality), (For all designated states except: US)

**Patent Applicant/Inventor:**

ARMSTRONG Juliet, 70 Park Street #64, Somerville, MA 02143, US, US  
(Residence), US (Nationality), (Designated only for: US)

WEST David, 18 Union Street, #1, Cambridge, MA 02141, US, US (Residence),  
US (Nationality), (Designated only for: US)

MILBERT Randy L, 339 Broadway Street, #3, Cambridge, MA 02139, US, US  
(Residence), US (Nationality), (Designated only for: US)

VU Sonny, 641 Green Street, Cambridge, MA 02139, US, US (Residence), US  
(Nationality), (Designated only for: US)

DAO Ngon D, 76 Fifth Street, #2, Cambridge, MA 02141, US, US (Residence),  
(Designated only for: US)

**Legal Representative:**

LICHAU CO Faustino A (agent), Fish & Richardson, P.C., 225 Franklin  
Street, Boston, MA 02110-2804, US,

**Patent and Priority Information (Country, Number, Date):**

Patent: WO 200244948 A2-A3 20020606 (WO 0244948)

Application: WO 2001US44375 20011128 (PCT/WO US01044375)

Priority Application: US 2000723966 20001128

**Parent Application/Grant:**

Related by Continuation to: US 2000723966 20001128 (CON)

**Designated States:**

(Protection type is "patent" unless otherwise stated - for applications  
prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ  
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR  
LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL  
TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW  
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR  
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: **G06F-017/30**

Publication Language: English

Filing Language: English

**Fulltext Availability:**

Detailed Description

Claims

Fulltext Word Count: 6590

**English Abstract**

A method for displaying information indicative of the content of a target document of a link displayed in a first window includes detecting an event indicative of a user's interest in the target document. The user's interest can be indicated by moving a mouse pointer into an active region associated with the link. Upon detecting this event, information indicative of the content of the target document is retrieved and presented to the user without having to open the target document. One mechanism for presenting the information is to open a second window and

to display the information in the second window.

#### French Abstract

Procede d'affichage d'informations revelatrices du contenu d'un document cible d'un lien affiche dans une premiere fenetre. Ledit procede comporte la detection d'un evenement indicateur d'un interet de l'utilisateur dans le document cible. L'interet de l'utilisateur peut etre indique par un deplacement du pointeur de la souris dans une region active associee au lien. Une fois cet evenement detecte, des informations revelatrices du contenu du document cible sont extraites et presentees a l'utilisateur sans que ce dernier ait a ouvrir le document cible. Dans un mecanisme de presentation des informations, une seconde fenetre est ouverte et les informations sont affichees dans ladite seconde fenetre.

#### Legal Status (Type, Date, Text)

Publication 20020606 A2 Without international search report and to be republished upon receipt of that report.

Search Rpt 20040226 Late publication of international search report  
Republication 20040226 A3 With international search report.

Main International Patent Class: G06F-017/30

#### Fulltext Availability:

Detailed Description

#### Detailed Description

... browser window of the contents of the document whose summary 62 is currently in the **summary** pane 64. In an alternative embodiment, clicking on the **document** title results in the **replacement** of the contents of the primary window with the contents of the document whose summary...

47/5, K/42 (Item 42 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00885041 \*\*Image available\*\*

CONCEPT IDENTIFICATION SYSTEM AND METHOD FOR USE IN REDUCING AND/OR  
REPRESENTING TEXT CONTENT OF AN ELECTRONIC DOCUMENT  
PROCEDURE ET SYSTEME D'IDENTIFICATION DE CONCEPT, UTILES POUR REDUIRE ET/OU  
REPRESENTER UN CONTENU TEXTE D'UN DOCUMENT ELECTRONIQUE

#### Patent Applicant/Assignee:

AMIKANOW CORPORATION, Suite 400A, 320 March Road, Kanata, Ontario K2K 2E3  
, CA, CA (Residence), CA (Nationality)

#### Inventor(s):

ABU-HAKIMA Suhayya, 22 Balding Crescent, Kanata, Ontario K2K 2L4, CA,

#### Legal Representative:

CASSAN Lynn (et al) (agent), Cassan MacLean, Suite 401, 80 Aberdeen St.,  
Ottawa, Ontario K1S 5R5, CA,

#### Patent and Priority Information (Country, Number, Date):

Patent: WO 200219155 A2-A3 20020307 (WO 0219155)

Application: WO 2001CA1197 20010828 (PCT/WO CA0101197)

Priority Application: US 2000649028 20000828

#### Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ  
EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR  
LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PH PL PT RO RU SD SE SG SI SK  
SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW  
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG  
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM  
Main International Patent Class: G06F-017/30  
International Patent Class: G06F-017/27  
Publication Language: English  
Filing Language: English  
Fulltext Availability:  
    Detailed Description  
    Claims  
Fulltext Word Count: 5582

#### English Abstract

A concept identification system useful in reducing and/or representing text content of an electronic document and in highlighting the content of the document. A concept knowledge base comprises a plurality of concepts and each concept comprises one or more subconcepts linked to each other and to the concept on a hierarchical basis. One or more of the subconcepts may be linked to one or more subconcepts of another concept. A concept matching module matches text of the document to subconcepts of the concept knowledge base and assesses any links between the matched subconcepts and other concepts and/or subconcepts of the concept knowledge base. From this a determination is made of whether the document relates to a concept of the knowledge base. With an identification of such concept a document representation generator may produce a precis of the document based on a template associated with such concept. For highlighting of a document a highlighter module determines key content of the input document and an interface integrates the concept identification system and the highlighter module. An output module produces an output highlight document from the key content.

#### French Abstract

L'invention concerne un systeme d'identification de concept, utile pour reduire et/ou representer un contenu texte d'un document electronique et pour mettre en evidence le contenu de ce document. Une base de connaissances de concepts comprend plusieurs concepts comprenant chacun un ou plusieurs sous-concepts lies les uns aux autres ainsi qu'au concept, sur une base hierarchique. Un ou plusieurs sous-concepts peuvent etre lies a un ou plusieurs sous-concepts d'un autre concept. Un module de mise en correspondance de concepts met en correspondance le texte du document avec les sous-concepts de la base de connaissances de concepts et determine tous les liens entre les sous-concepts mis en correspondance et d'autres concepts et/ou sous-concepts de la base de connaissances de concepts. Apres cette etape de mise en correspondance, une etape de determination est executee qui permet de savoir si le document se rapporte a un concept de la base de connaissances. Grace a l'identification d'un tel concept, un generateur de representation de documents peut produire un abrege du document, d'apres un modele associe a un tel concept. Pour mettre en valeur un document, un module de mise en valeur determine le contenu cle du document entre et une interface integre le systeme d'identification de concepts et le module de mise en valeur. Un module de sortie produit un document mis en valeur a partir du contenu cle.

#### Legal Status (Type, Date, Text)

Publication 20020307 A2 Without international search report and to be republished upon receipt of that report.  
Examination 20021010 Request for preliminary examination prior to end of 19th month from priority date  
Search Rpt 20031224 Late publication of international search report  
Republication 20031224 A3 With international search report.

Republication 20031224 A3 Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

Main International Patent Class: **G06F-017/30**

Fulltext Availability:

Detailed Description

Detailed Description

... purposes of

assisting the user in handling such communications and for effective classification, archiving and **retrieval** of the information.

**SUBSTITUTE SHEET (RULE 26)**

The known **document condensers** (sometimes also referred to as key word/phrase "extractors" or as "summarizers") , which typically function...network to improve the highlighter system's assignment of weightings to other words of the **document** for purposes of generating a

14

**SUBSTITUTE SHEET (RULE 26)**

highlight **summary** of the **document** as detailed in said copending U.S. application.

Identification of a concept by the system...

...conference room 101 between 1:30 and 3:00pm for all managers." The system thereby **substitutes** standardized terms for terms of the **document** to form a **precis** text that is much clearer for the user than would be produced by simply extracting...

**47/5, K/54 (Item 54 from file: 349)**

DIALOG(R) File 349:PCT FULLTEXT

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00805456 \*\*Image available\*\*

**CONTENT-SPECIFIC FILENAME SYSTEMS**

**SYSTEMES DE NOMS DE FICHIERS SPECIFIQUES AU CONTENU**

Patent Applicant/Assignee:

MICROSOFT CORPORATION, One Microsoft Way, Redmond, WA 98052, US, US  
(Residence), US (Nationality)

Inventor(s):

BURGESS Giles J, 845 Bellevue Pl. East, Apt. 301, Seattle, WA 98102, US,  
Legal Representative:

PAYNE Stephen S (et al) (agent), Banner & Witcoff, Ltd., 1001 G Street,  
N.W., Eleventh Floor, Washington, DC 20001-4597, US,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200139043 A2-A3 20010531 (WO 0139043)

Application: WO 2000US26216 20000925 (PCT/WO US0026216)

Priority Application: US 99447787 19991123

Designated States:

(Protection type is "patent" unless otherwise stated - for applications prior to 2004)

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE  
ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT  
LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM  
TR TT TZ UA UG UZ VN YU ZA ZW

(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG  
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW  
(EA) AM AZ BY KG KZ MD RU TJ TM

Main International Patent Class: **G06F-017/30**

Publication Language: English

Filing Language: English

Fulltext Availability:

    Detailed Description

    Claims

Fulltext Word Count: 8361

#### English Abstract

A computer file naming technique employs content-specific filenames (CSFN's) that represent globally-unique identifiers for the contents of a file. Since file references incorporating the CSFN's are not location-specific, they offer unique advantages in the areas of file caching and file installation. Particularly, web browsers enabled to recognize CSFN's inherently verify the content of files when they are retrieved from a local cache, eliminating the need for comparison of file data or time stamps of the cached file copy and the server copy. Thus, file verification occurs solely in the local context. The invention includes caching and software installation systems that incorporate the benefits of CSFN's.

#### French Abstract

Selon l'invention, une technique de denomination d'un fichier informatique utilise des noms de fichiers spécifiques au contenu (CSFN) représentant des identificateurs globalement uniques du contenu d'un fichier. Etant donné que les références de fichier intégrant les noms de fichiers spécifiques au contenu ne sont pas spécifiques à l'emplacement, elles présentent des avantages uniques dans les domaines de mise en antémémoire et d'installation de fichiers. Plus particulièrement, les navigateurs Web pouvant reconnaître lesdits noms de fichiers spécifiques au contenu vérifient intrinsèquement le contenu des fichiers lorsque ces derniers sont récupérés dans une antémémoire locale, ce qui rend inutile la comparaison des données de fichier ou des horodateurs de la copie du fichier mise en antémémoire et de la copie sur serveur. Ainsi, les fichiers ne sont vérifiés que localement. L'invention concerne des systèmes de mise en antémémoire et d'installation de logiciels intégrant les avantages des noms de fichiers spécifiques au contenu.

#### Legal Status (Type, Date, Text)

Publication 20010531 A2 Without international search report and to be republished upon receipt of that report.

Examination 20010927 Request for preliminary examination prior to end of 19th month from priority date

Search Rpt 20031211 Late publication of international search report

Republication 20031211 A3 With international search report.

Republication 20031211 A3 Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

Main International Patent Class: **G06F-017/30**

Fulltext Availability:

    Detailed Description

#### Detailed Description

... technique for reducing the duplication of content, i.e., logos, backgrounds, bars, buttons, etc., in **retrieved** HTML and text documents on the Web.

Using the technique of Mogul and van Hoff, any response whose message **digest** is equivalent to the **message digest** of the **requested** resource may be **substituted**. A

3

proxy may check its cache to see if a cached instance of the...

...both the client and server. Moreover, their method requires the additional step of determining the **message digest** of the **requested** resource before **substitution** can occur. This additional step prevents back-compatibility of the technique of Mogul and van...

?

?

File 347:JAPIO Nov 1976-2005/Feb(Updated 050606)  
(c) 2005 JPO & JAPIO  
File 350:Derwent WPIX 1963-2005/UD,UM &UP=200548  
(c) 2005 Thomson Derwent  
File 371:French Patents 1961-2002/BOPI 200209  
(c) 2002 INPI. All rts. reserv.

Set	Items	Description
S1	374125	DISPLAC? OR SUBROGAT?
S2	2299055	REPLAC??? ? OR REPLACEMENT? OR SUBSTITUT???? ? OR RE() (PLAC??? ? OR PLACEMENT? ?) OR EXCHANG? OR SWAP? OR SWITCH? OR SUPPLANT?
S3	417	FULLTEXT? OR (FULL OR COMPLETE) ()TEXT
S4	1510714	DOCUMENT? ? OR ARTICLE? ? OR RECORD? ? OR REPORT? ? OR MESSAGE? ?
S5	3454309	ABSTRACT? ? OR SUMMARY? OR SUMMARIES OR SUMMATION? OR SHORTEN? OR SHORTER? OR ABBREVIAT? OR REDUC??? ? OR REDUCTION?
S6	327132	ABRIDG? OR CONDENS??? ? OR PRECIS OR SYNOPSI? OR CAPSUL? OR RECAP? ? OR BRIEF?? ? OR DIGEST? ?
S7	273408	EXTRACT? ?
S8	27855	S1:S2(10N)S3:S4
S9	772	S8(10N)S5:S7
S10	1075188	SEARCH? OR RETRIEV? OR HARVEST? OR QUERY? OR QUERIE? OR MINING? ? OR MINING OR DATAMIN? OR TEXTSEARCH? OR REQUEST?
S11	52509	IR
S12	97	S11(3N)S4
S13	0	S9 AND S12
S14	119	S9 AND S10:S11
S15	153002	DATA() (BASE? ? OR SET? ? OR BANK? ? OR STORE? OR SYSTEM? OR COLLECTION? OR LIBRAR? OR DEPOSIT? OR REPOSIT? OR WAREHOUSE? OR WARE? ? OR MART? ?)
S16	8	DATAWAREHOUSE? OR DATAMART?
S17	110165	DATABASE? OR DATASET? OR DATABANK? OR DATASTORE? OR DATASYSTEM? OR DATACOLLECTION? OR DATALIBRAR? OR DATADEPOSIT? OR DATAREPOSIT?
S18	49	S9 AND S15:S17
S19	1237282	IC='G06F'
S20	45	S14 AND S19
S21	91	S16 OR S18 OR S20
S22	29	S21 AND AC=US/PR
S23	19	S22 AND AY=(1976:2000)/PR
S24	51	S21 AND PY=1976:2000
S25	60	S23:S24
S26	60	IDPAT (sorted in duplicate/non-duplicate order)
S27	58	IDPAT (primary/non-duplicate records only)

27/9/3 (Item 3 from file: 350)

DIALOG(R) File 350:Derwent WPIX  
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014385686 \*\*Image available\*\*

WPI Acc No: 2002-206389/200226

Related WPI Acc No: 2002-206368

XRPX Acc No: N02-157180

Content delivery accelerating system for use in networked environment to replace old documents uses condenser to replace unchanged portions of document by pointers to these portions

Patent Assignee: FINEGROUND NETWORKS (FINE-N)

Inventor: KAUSIK B N

Number of Countries: 095 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200213037	A1	20020214	WO 2001US24936	A	20010808	200226 B
AU 200181205	A	20020218	AU 200181205	A	20010808	200244

Priority Applications (No Type Date): US 2000634134 A 20000808

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200213037 A1 E 25 G06F-015/16

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

AU 200181205 A G06F-015/16 Based on patent WO 200213037

Abstract (Basic): WO 200213037 A1

NOVELTY - A condenser (200) ships the assembly module (120) from a content server (300) as a self-unwrapping Javascript process to the user computer (100) during the initial reaction and the condenser is configured transparently. The condenser maintains historic information about pages most frequently **requested** by each user so that, when a document is **requested**, only changed portions need to be reproduced.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for a method of improving network efficiency, for a condenser, for a computer readable medium with processing instructions and for a method and system for reassembling a condensed document.

USE - Accelerating delivery of content in networked environment.

DESCRIPTION OF DRAWING(S) - The drawing shows the system

Condenser (200)

Assembly module (120)

Content server (300)

User computer (100)

pp; 25 DwgNo 1/5

Title Terms: CONTENT; DELIVER; ACCELERATE; SYSTEM; ENVIRONMENT; REPLACE; DOCUMENT; CONDENSER; REPLACE; UNCHANGED; PORTION; DOCUMENT; POINT; PORTION

Derwent Class: T01

International Patent Class (Main): G06F-015/16

File Segment: EPI

Manual Codes (EPI/S-X): T01-D02; T01-F07; T01-H03A; T01-N03A1; T01-S03

27/9/11 (Item 11 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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013575192 \*\*Image available\*\*

WPI Acc No: 2001-059399/ 200107

XRPX Acc No: N01-044290

Organizing electronic mail for client with more than one work station, comprises modifying mail with large attachments to make it more suitable for access by mobile phone

Patent Assignee: TELEFONAKTIEBOLAGET ERICSSON L M (TELF )

Inventor: AQUILON A; GABRIELSSON J; WILLEHADSON S

Number of Countries: 092 Number of Patents: 005

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
SE 9902462	A	20001106	SE 992462	A	19990628	200107 B
SE 513804	C2	20001106				200107

WO 200101663	A1	20010104	WO 2000SE807	A	20000428	200108
AU 200044467	A	20010131	AU 200044467	A	20000428	200124
US 6738800	B1	20040518	US 2000604841	A	20000627	200433

Priority Applications (No Type Date): SE 992462 A 19990628

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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SE 9902462	A	24	G06F-017/60
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WO 200101663	A1	E	H04M-003/533
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Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW

AU 200044467	A	H04M-003/533	Based on patent WO 200101663
US 6738800	B1	G06F-013/00	

Abstract (Basic): SE 9902462 A

NOVELTY - Electronic information (101) is received in its original format, stored in a first directory (102) and processed to generate information (113a-113c) adapted to a different data format, this processed information then being stored in a directory (121a-121c) with a structure corresponding to that of the first directory. The client then **retrieves** the information either in its original or processed data format, depending on the access environment of his or her work station.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for the device used to carry out this process.

USE - None given.

ADVANTAGE - Large attachments such as images, video clips or sound files can be removed when email is sent to a client's mobile phone (e.g. WAP phone), reducing the burden on the mail organizing system.

DESCRIPTION OF DRAWING(S) - Figure 1 shows a schematic view of the electronic mailbox.

- Storage area (100)
- Incoming electronic mail (101)
- User-defined directory of stored mail (102)
- Agent (110)
- Analysis device (111)
- Electronic mail processor (112)
- Processed mail (113a-113c)
- Storage area (120)
- Directories corresponding to user-defined directory of stored mail (121a-121c)
- Ethernet (130)
- Work station (135)
- Radio link (140)
- Mobile phone (145)
- Modem link (150)
- Laptop computer (155)
- Modem link (160)
- Work station (165)
- Interface, e.g. electronic mail server (170)

pp; 24 DwgNo 1/5

Technology Focus:

TECHNOLOGY FOCUS - IMAGING AND COMMUNICATION - Processing involves filtering at least one component of the electronic information in order to convert it into a new format, especially by removing a colour component from the information, or by removing at least part of one of the information components to **reduce** its size and **replacing** with an

identifier. Images and voice **messages** can be included or attached to the information.

Title Terms: ORGANISE; ELECTRONIC; MAIL; CLIENT; MORE; ONE; WORK; STATION; COMPRISE; MODIFIED; MAIL; ATTACH; MORE; SUIT; ACCESS; MOBILE; TELEPHONE

Derwent Class: T01; W01; W02

International Patent Class (Main): G06F-013/00 ; G06F-017/60 ; H04M-003/533

International Patent Class (Additional): H04L-012/58

File Segment: EPI

Manual Codes (EPI/S-X): T01-E01A; T01-H07C1; T01-J05B4P; W01-A06B7; W01-A06E1; W01-A06G2; W01-A06X; W01-B05A1A; W02-C03C1A

27/9/14 (Item 14 from file: 350)

DIALOG(R) File 350:Derwent WPIX  
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012857182 \*\*Image available\*\*  
WPI Acc No: 2000-029015/ 200003  
XRPX Acc No: N00-022039

Search **substituted processing apparatus for document processing device**  
- searches document data by replacing corresponding character row data  
into another character row data

Patent Assignee: CANON KK (CANO )  
Number of Countries: 001 Number of Patents: 001  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 11296513	A	19991029	JP 98104591	A	19980415	200003 B

Priority Applications (No Type Date): JP 98104591 A 19980415

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 11296513	A	7		G06F-017/24	

Abstract (Basic): JP 11296513 A

NOVELTY - Search substitution unit performs search substitution by replacing the row of characters by another character row. automatically. Edit unit judges whether substitution occurs and search unit proceeds search for document data corresponding to the row of characters. DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for procedure for search substituted process.

USE - For document processing.

ADVANTAGE - The searched character row is replaced by another character row, thus the corresponding document data is preserved. Therefore operators burden is reduced, operation efficiency is hence achieved. DESCRIPTION OF DRAWING(S) - The figure shows block diagram of document processor.

Dwg.7/7

Title Terms: **SEARCH** ; SUBSTITUTE; PROCESS; APPARATUS; DOCUMENT; PROCESS; DEVICE; **SEARCH** ; DOCUMENT; DATA; REPLACE; CORRESPOND; CHARACTER; ROW; DATA; CHARACTER; ROW; DATA

Derwent Class: T01

International Patent Class (Main): G06F-017/24

International Patent Class (Additional): G06F-017/21

File Segment: EPI

Manual Codes (EPI/S-X): T01-J11A

? t27/9/26,36

27/9/26 (Item 26 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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011272343    \*\*Image available\*\*  
WPI Acc No: 1997-250246/ 199723  
XRPX Acc No: N97-206675

Electronic filing system for document management - uses link information memory to store link information on each document with same search keyword corresponding to classification of each class of document-classification directory

Patent Assignee: RICOH KK (RICO )  
Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 9081585	A	19970328	JP 95236466	A	19950914	199723 B

Priority Applications (No Type Date): JP 95236466 A 19950914

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 9081585	A	17		G06F-017/30	

Abstract (Basic): JP 9081585 A

The electronic filing system has an adder which adds the keyword for **searching**, and the classification contents are displayed. A document memory (206) stores the classification contents and the keyword for **searching**, corresponding to the specific document. A selector chooses some classes of a document-classification directory from the contents of the document memory. An information memory stores the document- management information related to every user, corresponding to the hierarchical classification of the document-classification directory.

A **searching** part looks for the document with the same **search** keyword obtained from the document memory, based on the classification of each class of document-management information. A link memory stores the link information on each document with the same **search** keyword, corresponding to the classification of each class of the document-classification directory.

ADVANTAGE - Enables automatic deletion and **substitution** corresponding to **document** -management information. Reduces **document** -management burden on user. Avoids causing damage to original image of registered document.

Dwg.1/11

Title Terms: ELECTRONIC; FILE; SYSTEM; DOCUMENT; MANAGEMENT; LINK; INFORMATION; MEMORY; STORAGE; LINK; INFORMATION; DOCUMENT; **SEARCH** ; KEYWORD; CORRESPOND; CLASSIFY; CLASS; DOCUMENT; CLASSIFY; DIRECTORY

Derwent Class: T01

International Patent Class (Main): G06F-017/30

International Patent Class (Additional): G06F-012/00 ; G06F-017/21

File Segment: EPI

Manual Codes (EPI/S-X): T01-J05B1; T01-J05B3; T01-J11D

27/9/36 (Item 36 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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008690738

WPI Acc No: 1991-194758/ 199127

XRPX Acc No: N91-149124

Image forming-storing apparatus e.g. copying machine - replaces sheets of document data with one sheet of paper on which abstract image data

is recorded

Patent Assignee: TOSHIBA KK (TOKE )

Inventor: HASEGAWA H; MAEDA M; MIURA K; NAKAMURA H

Number of Countries: 003 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 435174	A	19910703	EP 90124906	A	19901220	199127 B
EP 435174	A3	19920415	EP 90124956	A	19901220	199328

Priority Applications (No Type Date): JP 89336008 A 19891225

Cited Patents: NoSR.Pub; EP 327931; EP 330343; GB 2219674

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

EP 435174 A

Designated States (Regional): DE FR GB

Abstract (Basic): EP 435174 A

Image data is converted into digital data and is read by a scanner (41). The digital data read by the scanner (41) is stored in an optical disk (233). **Retrieval** data (802, 805) representing the storage position or the like of the **data stored** in the optical disk (233) is also recorded in the optical disk (233). In addition, paper (P) on which abstract image data of the digital **data stored** in the optical disk (233) is recorded is output from a printer (43). The respective components of the invention are integrally arranged. Sheets of **document** data are **replaced** with one sheet of paper (P) on which simple **abstract** image data is recorded and image **data stored** in an optical disk (233), thus allowing easy registration and **retrieval** of image data of documents and enabling a great reduction in space for documents.

ADVANTAGE - Enjoys both advantages of paper file and electronic file, i.e., quick data access and large storage capacity. (22pp

Dwg.No.1/10

Title Terms: IMAGE; FORMING; STORAGE; APPARATUS; COPY; MACHINE; REPLACE; SHEET; DOCUMENT; DATA; ONE; SHEET; PAPER; ABSTRACT; IMAGE; DATA; RECORD

Derwent Class: S06; T01; W02; W04

International Patent Class (Additional): G06F-015/64

File Segment: EPI

Manual Codes (EPI/S-X): S06-A16; T01-H01B; T01-J05B; T01-J10A; W02-J09; W04-K05

?

PLEASE ENTER A COMMAND OR BE LOGGED OFF IN 5 MINUTES

? t27/9/39,41-42,55-56,58

27/9/39 (Item 39 from file: 347)

DIALOG(R) File 347:JAPIO

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06271340 \*\*Image available\*\*

DATA PROCESSING DEVICE AND METHOD, DOCUMENT EDITING SYSTEM AND RECORD MEDIUM

PUB. NO.: 11-212928 [JP 11212928 A]

PUBLISHED: August 06, 1999 ( 19990806)

INVENTOR(s): ITO KOICHI

SEKINE MINORU

BANDO HIROYUKI

APPLICANT(s): SONY CORP

APPL. NO.: 10-013903 [JP 9813903]

FILED: January 27, 1998 (19980127)

INTL CLASS: G06F-015/16

## ABSTRACT

PROBLEM TO BE SOLVED: To quickly edit or print the document data.

SOLUTION: When the document data are inputted by a document data input means 11 and the image data are interpolated to a document, a client 1 gives a transfer **request** to an image server 2 via an editing image data transfer **request** means 12. Receiving the transfer **request** from the client 1, the server 2 reads out the editing image data recorded by an editing image data recording means 24 and transmits them to the client 1. The client 1 receives the editing image data, interpolates them to the document data and sends them to a data processor 3. The processor 3 **extracts** URL from the editing image data interpolated to the **document**, acquires the corresponding image data from the server 2 to **replace** them with the editing image data and prints these editing image data by a printer, etc.

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**27/9/41 (Item 41 from file: 347)**

DIALOG(R) File 347:JAPIO  
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05822271 \*\*Image available\*\*  
DEVICE AND METHOD FOR READING DOCUMENT ALOUD

PUB. NO.: 10-105371 [JP 10105371 A]  
PUBLISHED: April 24, 1998 (19980424)  
INVENTOR(s): OTANI NORIKO  
IKEDA YUJI  
FUJITA MINORU  
APPLICANT(s): CANON INC [000100] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 08-260841 [JP 96260841]  
FILED: October 01, 1996 (19961001)  
INTL CLASS: [6] G06F-003/16 ; G06F-017/21 ; H04M-003/42  
JAPIO CLASS: 45.3 (INFORMATION PROCESSING -- Input Output Units); 36.4  
(LABOR SAVING DEVICES -- Service Automation); 44.4  
(COMMUNICATION -- Telephone); 45.4 (INFORMATION PROCESSING --  
Computer Applications)  
JAPIO KEYWORD: R108 (INFORMATION PROCESSING -- Speech Recognition &  
Synthesis); R131 (INFORMATION PROCESSING -- Microcomputers &  
Microprocessors)

## ABSTRACT

PROBLEM TO BE SOLVED: To make it possible to grasp the whole contents of an unread document in a short time through the document reading-aloud device which converts an electronized document into a synthesized voice and outputs it in response to an instruction passed through a telephone line.

SOLUTION: An unread document **retrieval** part 102 **retrieves** unread documents from documents held in a document holding part 101 and then the obtained number of the unread documents is reported to a user by an unread document quantity transmission part 104. Further, read-out contents inputted by a read-aloud contents instruction part 105 are referred to and a summary sentence generation part 108 or unread document extraction part 109 generates read-aloud sentences to be voiced out; and a speech synthesis part 111 performs a speech synthesizing process by referring to the read-aloud sentences and obtained speech parameters are outputted by a

speech output part 113, thereby **switching** a read between the **summary** sentences and the whole **document** .

**27/9/42 (Item 42 from file: 347)**  
DIALOG(R) File 347:JAPIO  
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04848758 \*\*Image available\*\*  
DOCUMENT PROCESSOR

PUB. NO.: 07-141358 [JP 7141358 A]  
PUBLISHED: June 02, 1995 ( 19950602 )  
INVENTOR(s): SOMA TSUNENORI  
APPLICANT(s): CANON INC [000100] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 05-288315 [JP 93288315]  
FILED: November 17, 1993 (19931117)  
INTL CLASS: [6] G06F-017/24  
JAPIO CLASS: 45.4 (INFORMATION PROCESSING -- Computer Applications)  
JAPIO KEYWORD: R004 (PLASMA); R011 (LIQUID CRYSTALS); R131 (INFORMATION  
PROCESSING -- Microcomputers & Microprocessors)

#### ABSTRACT

PURPOSE: To **shorten** the operation time and to efficiently perform the **full - text exchange** processing by providing a control means which always executed **full - text exchange** in accordance with contents of a memory for **full - text exchange** independently of contents of a **document** memory and performing **full - text exchange** with the same contents without setting contents to be subjected to full-text exchange with respect to each read document.

CONSTITUTION: On a display part 2, required information and the result after execution are displayed in a window displayed in a prescribed position at a prescribed timing in accordance with the operation on a keyboard 1. A cursor is displayed on this display part 2 to point the input start position of document information or the like, and character information or the like from the keyboard 1 is displayed. A CPU 3 executes various information processings based on control programs and **data stored** in a ROM/RAM part 4. Full-text exchange is always executed in accordance with a memory 7 for full-text exchange independently of contents of a document memory 6. That is, deletion of contents of the memory 7 for full-text exchange is inhibited.

**27/9/55 (Item 55 from file: 347)**  
DIALOG(R) File 347:JAPIO  
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02814762 \*\*Image available\*\*  
DOCUMENT PRODUCING DEVICE

PUB. NO.: 01-112362 [JP 1112362 A]  
PUBLISHED: May 01, 1989 ( 19890501 )  
INVENTOR(s): KINUGAWA YUKIE  
MIMURA YOSHISUKE  
APPLICANT(s): MATSUSHITA ELECTRIC IND CO LTD [000582] (A Japanese Company  
or Corporation), JP (Japan)  
APPL. NO.: 62-269651 [JP 87269651]  
FILED: October 26, 1987 (19871026)

INTL CLASS: [4] G06F-015/20  
JAPIO CLASS: 45.4 (INFORMATION PROCESSING -- Computer Applications)  
JAPIO KEYWORD: R139 (INFORMATION PROCESSING -- Word Processors)  
JOURNAL: Section: P, Section No. 913, Vol. 13, No. 353, Pg. 53, August 08, 1989 (19890808)

ABSTRACT

PURPOSE: To efficiently produce a desired **document** by previously setting and storing **switch** representing information and **reducing** an editing operation by the use of the switch representing information.

CONSTITUTION: A switch representing information setting part 1 sets the switch representing information and a switch representing information temporary storing part 2 stores the switch representing information. When an operator desired to use the switch representing information stored in the switch representing information temporary storing part 2, a switch executing part 5 switches a part of an edited document to the switch representing information taken out from the switch representing information temporary storing part 2. Thereby, the burden of the operator can be reduced since the operator has to store plural representations and a document can be formed in a short time since it is not required to reread all sentence and **search** a deleted part when a mark is set to a part to be saved previously if the document limiting the number of characters is formed.

27/9/56 (Item 56 from file: 347)

DIALOG(R) File 347:JAPIO  
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02598286 \*\*Image available\*\*  
MIXED MODE DOCUMENT **RETRIEVING** DEVICE

PUB. NO.: 63-215186 [JP 63215186 A]  
PUBLISHED: September 07, 1988 ( 19880907)  
INVENTOR(s): ASABA SHOJI  
APPLICANT(s): MATSUSHITA GRAPHIC COMMUN SYST INC [330729] (A Japanese Company or Corporation), JP (Japan)  
APPL. NO.: 62-048162 [JP 8748162]  
FILED: March 03, 1987 (19870303)  
INTL CLASS: [4] H04N-007/173; G06F-015/40 ; H04N-007/12  
JAPIO CLASS: 44.6 (COMMUNICATION -- Television); 45.4 (INFORMATION PROCESSING -- Computer Applications)  
JOURNAL: Section: E, Section No. 701, Vol. 13, No. 5, Pg. 8, January 09, 1989 (19890109)

ABSTRACT

PURPOSE: To remarkably **shorten** the transmission time of a **document** trially **retrieved** in order to seach an objective **document** by **replacing** image data in a **retrieved** mixed **document** with pseudo image data in accordance with a **request** from a terminal equipment.

CONSTITUTION: A **retrieving** device 10 replaces only an image data part with large data capacity out of a **retrieved** mixed document by the pseudo image data expressing a fully white image e.g. in accordance with a **request** from a terminal equipment. Namely, a document consisting of character data and image data is converted into a document consisting of the character data and pseudo image data. In the converted document, the character part is stored as it is, but the image part is lost and blanked. Since the pseudo image data express only the blank, the data volume can be

remarkably reduced as compared to that of real image data expressing the original image. Thus, the time required for the transmission can be remarkably shortened.

27/9/58 (Item 58 from file: 347)

DIALOG(R) File 347:JAPIO

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01624961 \*\*Image available\*\*

#### SUBSTITUTE KEY CONTROL PROCESSING SYSTEM USING PLURAL ITEMS

PUB. NO.: 60-103461 [JP 60103461 A]  
PUBLISHED: June 07, 1985 ( 19850607)  
INVENTOR(s): HONDA SHIGEO  
APPLICANT(s): FUJITSU LTD [000522] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 58-211273 [JP 83211273]  
FILED: November 10, 1983 (19831110)  
INTL CLASS: [4] **G06F-012/00**  
JAPIO CLASS: 45.2 (INFORMATION PROCESSING -- Memory Units)  
JOURNAL: Section: P, Section No. 395, Vol. 09, No. 253, Pg. 59,  
October 11, 1985 (19851011)

#### ABSTRACT

PURPOSE: To evade the rearrangement of a record item and the duplication of this item by defining substitute keys for optional plural items within a desired record.

CONSTITUTION: A substitute key control information memory area 12 stores the information on the compounded items in case a substitute key consists of said items. For instance, the area 12 stores the number of discontinuous items included in the substitute key, the position information, the length, etc. A substitute key defining part 13 refers to each **record** of a master file 10 for **substitute** keys of designated items. Then the part 13 **extracts** all **records** containing the contents of the **substitute** key for each said contents and sets the pointer information to produce a substitute index file 11. When plural items are designated, the record is **retrieved** by the contents combining these plural items. Then the control information is stored to the area 12 for automatic renewal of the file 11 when the corresponding record is extracted or the record is added to or deleted from the file 10.

?

File 9:Business & Industry(R) Jul/1994-2005/Jul 29  
(c) 2005 The Gale Group  
File 16:Gale Group PROMT(R) 1990-2005/Jul 28  
(c) 2005 The Gale Group  
File 47:Gale Group Magazine DB(TM) 1959-2005/Aug 01  
(c) 2005 The Gale group  
File 148:Gale Group Trade & Industry DB 1976-2005/Jul 29  
(c) 2005 The Gale Group  
File 160:Gale Group PROMT(R) 1972-1989  
(c) 1999 The Gale Group  
File 275:Gale Group Computer DB(TM) 1983-2005/Aug 01  
(c) 2005 The Gale Group  
File 570:Gale Group MARS(R) 1984-2005/Jul 29  
(c) 2005 The Gale Group  
File 621:Gale Group New Prod.Annou.(R) 1985-2005/Aug 01  
(c) 2005 The Gale Group  
File 636:Gale Group Newsletter DB(TM) 1987-2005/Jul 29  
(c) 2005 The Gale Group  
File 649:Gale Group Newswire ASAP(TM) 2005/Jul 18  
(c) 2005 The Gale Group

Set	Items	Description
S1	145381	DISPLAC? OR SUBROGAT?
S2	8430118	REPLAC??? ? OR REPLACEMENT? OR SUBSTITUT???? ? OR RE() (PLA- C??? ? OR PLACEMENT? ?) OR EXCHANG? OR SWAP? OR SWITCH? OR SU- PPLANT?
S3	488713	FULLTEXT? OR (FULL OR COMPLETE) ()TEXT
S4	16814819	DOCUMENT? ? OR ARTICLE? ? OR RECORD? ? OR REPORT? ? OR MES- SAGE? ?
S5	6198492	ABSTRACT? ? OR SUMMARY? OR SUMMARIES OR SUMMATION? OR SHOR- TEN? OR SHORTER? OR ABBREVIAT? OR REDUC??? ? OR REDUCTION?
S6	6731414	ABRIDG? OR CONDENS??? ? OR PRECIS OR SYNOPSI? OR CAPSUL? OR RECAP? ? OR BRIEF?? ? OR DIGEST? ?
S7	217682	EXTRACT? ?
S8	953305	S1:S2(10N)S3:S4
S9	56298	S8(10N)S5:S7
S10	6040559	SEARCH? OR RETRIEV? OR HARVEST? OR QUERY? OR QUERIE? OR MI- NE? ? OR MINING OR DATAMIN? OR TEXTSEARCH? OR REQUEST?
S11	149944	IR
S12	1277	S11(3N)S4
S13	1	S9(S)S12
S14	720	S9(S)S10:S11
S15	639965	DATA() (BASE? ? OR SET? ? OR BANK? ? OR STORE? OR SYSTEM? ? OR COLLECTION? OR LIBRAR? OR DEPOSIT? OR REPOSIT? OR WAREHOUS- E? OR WARE? ? OR MART? ?)
S16	4921	DATAWAREHOUS? OR DATAMART?
S17	1995945	DATABASE? OR DATASET? OR DATABANK? OR DATASTORE? OR DATASY- STEM? OR DATACOLLECTION? OR DATALIBRAR? OR DATADEPOSIT? OR DA- TAREPOSIT?
S18	575	S9(S)S15:S17
S19	490307	S1:S2(5N)S3:S4
S20	31190	S19(5N)S5:S7
S21	275	S20(S)S10:S11
S22	252	S20(S)S15:S17
S23	32	S21 AND S22
S24	5	S23/2001:2005
S25	27	S23 NOT S24
S26	17	RD (unique items)
S27	2674201	REPLAC??? ? OR REPLACEMENT? OR SUBSTITUT? OR RE() (PLAC??? ? OR PLACEMENT? ?) OR SWAP? OR SUPPLANT?

S28 41109 (S1 OR S27) (5N) S3:S4  
S29 7321 S28 (5N) S5:S7  
S30 106 S29 (S) S10:S11  
S31 44 S29 (S) S15:S17  
S32 143 S30:S31  
S33 56 S32/2001:2005  
S34 80 S32 NOT (S33 OR S23 OR S13)  
S35 50 RD (unique items)

**35/3,K/2 (Item 2 from file: 16)**  
DIALOG(R)File 16:Gale Group PROMT(R)  
(c) 2005 The Gale Group. All rts. reserv.

07843477 Supplier Number: 65486654 (USE FORMAT 7 FOR FULLTEXT)  
ETL provides the keys to keeping data relevant, available - Data  
extraction, transformation, and loading fuel the changing information  
needs of e-business applications. (Technology Information)  
Steinacher, Scott  
InfoWorld, v22, n39, p74  
Sept 25, 2000  
Language: English Record Type: Fulltext Abstract  
Document Type: Magazine/Journal; Trade  
Word Count: 1295

... is preferable because it reduces response times and enhances ease  
of use.

Before loading a **data mart**, programmers typically aggregate  
data. Aggregation routines **replace** numerous detail **records** with  
relatively few **summary** records. For example, suppose that a year's worth  
of sales data is stored in several thousand records in a normalized  
**database**.

Through aggregation, this data is transformed into fewer summary  
records that will be written to...

**35/3,K/43 (Item 3 from file: 275)**  
DIALOG(R)File 275:Gale Group Computer DB(TM)  
(c) 2005 The Gale Group. All rts. reserv.

01452976 SUPPLIER NUMBER: 11321277 (USE FORMAT 7 OR 9 FOR FULL TEXT)  
A DataBase Publisher. (Ventura Software Inc.'s DataBase Publisher report  
generator) (Forum) (Brief Article) (product announcement)  
Antonoff, Michael  
PC Sources, v2, n10, p87(1)  
Oct, 1991  
DOCUMENT TYPE: product announcement ISSN: 1052-6579 LANGUAGE:  
ENGLISH RECORD TYPE: FULLTEXT  
WORD COUNT: 187 LINE COUNT: 00015

**DataBas e** Publisher also provides eight types of dictionaries,  
including a substitution dictionary that **replaces** **abbreviations** used in  
**records** with formal names for reports, and an exceptions dictionary that  
treats certain document styles, such...  
?

File 6:NTIS 1964-2005/Jul W4  
(c) 2005 NTIS, Intl Cpyrgh All Rights Res  
File 2:INSPEC 1969-2005/Jul W4  
(c) 2005 Institution of Electrical Engineers  
File 8:EI Compendex(R) 1970-2005/Jul W3  
(c) 2005 Elsevier Eng. Info. Inc.  
File 57:Electronics & Communications Abstracts 1966-2005/Jul  
(c) 2005 CSA.  
File 34:SciSearch(R) Cited Ref Sci 1990-2005/Jul W4  
(c) 2005 Inst for Sci Info  
File 56:Computer and Information Systems Abstracts 1966-2005/Jul  
(c) 2005 CSA.  
File 35:Dissertation Abs Online 1861-2005/Jul  
(c) 2005 ProQuest Info&Learning  
File 60:ANTE: Abstracts in New Tech & Engineer 1966-2005/Jul  
(c) 2005 CSA.  
File 65:Inside Conferences 1993-2005/Jul W5  
(c) 2005 BLDSC all rts. reserv.  
File 94:JICST-EPlus 1985-2005/Jun W2  
(c) 2005 Japan Science and Tech Corp (JST)  
File 95:TEME-Technology & Management 1989-2005/Jun W3  
(c) 2005 FIZ TECHNIK  
File 99:Wilson Appl. Sci & Tech Abs 1983-2005/Jun  
(c) 2005 The HW Wilson Co.  
File 111:TGG Natl. Newspaper Index(SM) 1979-2005/Jul 29  
(c) 2005 The Gale Group  
File 144:Pascal 1973-2005/Jul W4  
(c) 2005 INIST/CNRS  
File 256:TecInfoSource 82-2005/Jun  
(c) 2005 Info.Sources Inc  
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec  
(c) 1998 Inst for Sci Info  
File 438:Library Lit. & Info. Science 1984-2005/Jun  
(c) 2005 The HW Wilson Co.  
File 483:Newspaper Abs Daily 1986-2005/Jul 30  
(c) 2005 ProQuest Info&Learning  
File 583:Gale Group Globalbase(TM) 1986-2002/Dec 13  
(c) 2002 The Gale Group

Set	Items	Description
S1	547398	DISPLAC? OR SUBROGAT?
S2	3838798	REPLAC??? ? OR REPLACEMENT? OR SUBSTITUT???? ? OR RE() (PLA- C??? ? OR PLACEMENT? ?) OR EXCHANG? OR SWAP? OR SWITCH? OR SU- PPLANT?
S3	14647	FULLTEXT? OR (FULL OR COMPLETE) () TEXT
S4	7043178	DOCUMENT? ? OR ARTICLE? ? OR RECORD? ? OR REPORT? ? OR MES- SAGE? ?
S5	8574762	ABSTRACT? ? OR SUMMARY? OR SUMMARIES OR SUMMATION? OR SHOR- TEN? OR SHORTER? OR ABBREVIAT? OR REDUC??? ? OR REDUCTION?
S6	1579821	ABRIDG? OR CONDENS??? ? OR PRECIS OR SYNOPSI? OR CAPSUL? OR RECAP? ? OR BRIEF?? ? OR DIGEST? ?
S7	386750	EXTRACT? ?
S8	76163	S1:S2(10N)S3:S4
S9	2359	S8(10N)S5:S7
S10	1969268	SEARCH? OR RETRIEV? OR HARVEST? OR QUERY? OR QUERIE? OR MI- NE? ? OR MINING OR DATAMIN? OR TEXTSEARCH? OR REQUEST?
S11	608698	IR
S12	1720	S11(3N)S4
S13	1	S9 AND S12
S14	177	S9 AND S10:S11
S15	171	S9 AND S10

S16 552607 DATA() (BASE? ? OR SET? ? OR BANK? ? OR STORE? OR SYSTEM? ?  
OR COLLECTION? OR LIBRAR? OR DEPOSIT? OR REPOSIT? OR WAREHOUS-  
E? OR WARE? ? OR MART? ?)  
S17 302 DATAWAREHOUS? OR DATAMART?  
S18 718793 DATABASE? OR DATASET? OR DATABANK? OR DATASTORE? OR DATASY-  
STEM? OR DATACOLLECTION? OR DATALIBRAR? OR DATADEPOSIT? OR DA-  
TAREPOSIT?  
S19 143 S9 AND S16:S18  
S20 50814 S1:S2(5N)S3:S4  
S21 846 S20(5N)S5:S7  
S22 76 S21 AND S10:S11  
S23 55 S21 AND S16:S18  
S24 122 S22:S23 NOT S13  
S25 23 S24/2001:2005  
S26 99 S24 NOT S25  
S27 67 RD (unique items)  
? t27/7/55,57,67

27/7/55 (Item 16 from file: 8)  
DIALOG(R)File 8:EI Compendex(R)  
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01042484 E.I. Monthly No: EI8109072818 E.I. Yearly No: EI81024036  
Title: SUMMARY TIME ORIENTED RECORD (STOR).  
Author: O'Keefe, Q. E. Whiting; Simborg, Donald W.  
Corporate Source: Univ of Calif, San Francisco  
Source: Proc Annu Symp Comput Appl Med Care 4th, Proc of the Annu Conf of  
the Soc for Adv Med Syst, 12th, vol 2, Washington, DC, Nov 1-5 1980. Publ  
by IEEE (Cat n 80CH1570-1), Piscataway, NJ, 1980 p 1175-1182  
Publication Year: 1980  
CODEN: PCMCDC  
Language: ENGLISH  
Journal Announcement: 8109  
Abstract: STOR is computerized three component, time-oriented, **summary**,  
medical **record** designed to partially **replace** the traditional paper  
chart in the outpatient clinics at the University of California San  
Francisco. Information from at least four distributed **databases**  
functioning independently is brought together in a single paper document.  
STOR is prioritized, displays inter-problem and chronological  
relationships, provides a high degree of physician control over the display  
and provides a great deal of information with little manual physician  
effort. Besides the usual issues of cost, impact, and acceptance, the  
evaluation will address the question of the informational competence of  
STOR in two single blind randomized controlled trials. 19 refs.

27/7/57 (Item 18 from file: 8)  
DIALOG(R)File 8:EI Compendex(R)  
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00277984 E.I. Monthly No: EI7213020823  
Title: UTILIZATION OF TERSE CONCLUSIONS IN AN INDUSTRIAL RESEARCH  
ENVIRONMENT.  
Author: Gordon, Irving; Carr, Russell L. K.; Bernier, Charles L.  
Corporate Source: Hooker Chemical Corp, Niagara Falls, NY  
Source: Journal of Chemical Documentation v 12 n 2 May 1972 p 86-88  
Publication Year: 1972  
CODEN: JCHDAN  
Language: ENGLISH  
Journal Announcement: 7213  
Abstract: Terse Conclusions are used at Hooker Research Center by

technical and management personnel as concise report surrogates, as an internal awareness mechanism, and as the key components in a Report Header Sheet System. A Terse Conclusion is concerned with the meaning of a document rather than the subject scope, as in an abstract. A Terse Conclusion is written for every project in a heterogeneous report. Weekly compendiums of Terse Conclusions, which have **replaced abstracts** at Hooker for Progress **Reports**, are circulated to the entire staff. These Terse Conclusions are also intended to aid in management decisions. 9 refs.

27/7/67 (Item 4 from file: 256)  
DIALOG(R)File 256:TecInfoSource  
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00115858 DOCUMENT TYPE: Review

PRODUCT NAMES: Company--Cambridge Scientific Abstracts (CSA) (865087);  
Company--Academic Press (867357)

TITLE: From Cambridge abstract to Academic full text  
AUTHOR: Hamilton, Feona J  
SOURCE: Information World Review, v145 p10(1) Mar 1999  
ISSN: 0950-9879  
HOMEPAGE: <http://www.iwr.co.uk>

RECORD TYPE: Review  
REVIEW TYPE: Company

Cambridge Scientific Abstracts (CSA) and Academic Press (AP) have teamed up to provide an innovative approach to hypertext linking of scientific abstracts with full-text article versions in one environment. AP abstracts will now be made available directly through CSA's own abstract service to augment the latter's ability to consistently move users from abstracts to full-text versions. With over 80 Internet Database Service databases included now, users are more assured of viewing more consistent information when switching between databases, abstracts, and full - text versions from disparate sources. Though both CSA and AP already offer expansive abstract services, the partnership promises to provide a wealthy resource that is better than the singular sum of its parts. More than 2,000 articles are added every day to AP's resources for the company's over 7 million authorized users in 11 countries. Corporate libraries can now purchase three-year licenses from AP and CSA.

File 347:JAPIO Nov 1976-2005/Feb (Updated 050606)  
(c) 2005 JPO & JAPIO  
File 350:Derwent WPIX 1963-2005/UD,UM &UP=200548  
(c) 2005 Thomson Derwent  
File 348:EUROPEAN PATENTS 1978-2005/Jul W04  
(c) 2005 European Patent Office  
File 349:PCT FULLTEXT 1979-2005/UB=20050728,UT=20050721  
(c) 2005 WIPO/Univentio  
File 324:German Patents Fulltext 1967-200529  
(c) 2005 Univentio

Set Items Description  
S1 1 AU=PROKOPH A?  
? t1/9

1/9/1 (Item 1 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2005 Thomson Derwent. All rts. reserv.

014821720 \*\*Image available\*\*  
WPI Acc No: 2002-642426/200269  
XRPX Acc No: N02-507781

Information retrieval method in computer system, involves accessing search index storing tokens obtained by decomposing webpage extract to retrieve information from webpage extracts that satisfy search query  
Patent Assignee: PROKOPH A (PROK-I)  
Inventor: PROKOPH A  
Number of Countries: 001 Number of Patents: 001  
Patent Family:  
Patent No Kind Date Applcat No Kind Date Week  
US 20020091671 A1 20020711 US 2001989970 A 20011120. 200269 B

Priority Applications (No Type Date): EP 2000125608 A 20001123

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes  
US 20020091671 A1 11 G06F-007/00

Abstract (Basic): US 20020091671 A1

NOVELTY - A webpage to be indexed, is retrieved and a webpage extract is generated. The webpage extract is decomposed into tokens which are stored in a search index (207). The search index is accessed by a search engine to retrieve information from webpage extracts which satisfy a search query.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) Computer readable medium storing information retrieving program; and

(2) Information retrieval system.

USE - For information retrieval in computer system.

ADVANTAGE - Information is retrieved effectively within short time. The quality of search result is improved since the retrieved documents are more relevant in view of the semantic concept or notion represented by search query.

DESCRIPTION OF DRAWING(S) - The figure shows a block diagram of the search engine.

Search index (207)

pp; 11 DwgNo 2/3

Title Terms: INFORMATION; RETRIEVAL; METHOD; COMPUTER; SYSTEM; ACCESS; SEARCH; INDEX; STORAGE; TOKEN; OBTAIN; DECOMPOSE; EXTRACT; RETRIEVAL; INFORMATION; EXTRACT; SATISFY; SEARCH; QUERY

Derwent Class: T01

International Patent Class (Main): G06F-007/00

File Segment: EPI

Manual Codes (EPI/S-X): T01-N03A2; T01-S03

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## INDEXING AND ABSTRACTING

### INTRODUCTORY LECTURE

Often, people looking for information cannot identify the specific data or combination of data that they want at the beginning of their searches. It may be that their needs are not yet fully defined, and they simply want to browse. Alternatively, they may not understand a retrieval system sufficiently, or it may simply be impossible for their needs to be expressed in its terms. As a result they will not be able to translate their needs into the appropriate specifications and must scan to find what they want.

At that point the sheer number of information sources is a major problem in retrieving the information desired. Retrieval problems for a small file are relatively trivial. For example, the owner of a small collection of reprints knows the content of each publication. To retrieve a single item one needs only to leaf through the pile of reprints for the needed paper. One could scan the entire collection in order to locate specific pieces of information.

Locating a single item in a large collection is a problem of a different magnitude. One needs to know either the exact location of the item or the general location of items which are on the same topic. A large array of aids has been designed to facilitate the retrieval of specific documents or groups of documents with common subjects. An index is by far the most common adjunct to any sizable collection of documents. Index cards or index records serve as surrogates to the actual documents and may be easily arranged in various ways.

## Information Representation

Information representation is that aspect of information retrieval in which the original file of documents is represented by a set of tags or surrogates such as abstracts or index terms. The concept of subject retrieval is also known as content representation. The physical forms of representation are organized in such a manner that they may be manipulated and searched to access more efficiently and effectively the content of the collection. The key concepts are organization of the information resources in order that searching can be facilitated. The aim of organization is not for the sake of organizing. Organization is for the express purpose of expediting information retrieval. Thus, indexing and abstracting is a vital component in the communication link between the originator of information and its ultimate consumer.

Abstracts and indexes organize the literature so that a specialist can identify documents of interest more easily. This is particularly important in scientific and technical fields of endeavor, but it is also becoming increasingly recognized as essential in the social sciences and humanities.

Some of you may find yourselves employed in a library or commercial setting doing indexing and/or abstracting. Others of you will be consumers of the products of indexing and abstracting services. An appreciation of the decisions necessary in the compilation of abstracts and indexes is essential not only to the intending indexer but also to the information professional devoted to information work in whatever setting.

## ABSTRACTS: THE BASICS

Definition: The American National Standards Institute (1979) defines an abstract as an abbreviated, accurate representation of the contents of a document, preferably prepared by its author for publication with it. In short, it is a concise condensation of the significant content of a document presenting its objectives, scope, and major findings. Its primary objective is to capture the essential content of the document thus saving the reader's time. Thus, instead of scanning the entire document, the reader may decide on its relevance by reading a short representation of it. An abstract assists the reader in determining whether there is a need to consult the full text in order to gain the needed information. An abstract also contains terms, called index terms, relating to the subject of the document. Thus, the abstract is often an integral part of a bibliographic record in an indexing system that enhances retrievability of the original document.

Good abstracts are highly structured, concise, and coherent, and are the result of a thorough analysis of the content of the abstracted materials. The art of abstracting demands the application of extensive reading, thinking, writing, and editing skills.

Conciseness and significance are two key concepts in abstracting. Both are relative terms, subject to interpretation. Abstractors attempt to write in a clear, terse, accurate, and noncritical manner in a style similar to that of the original publication. Yet, different abstracts may be written for the identical document depending on the audience for whom the abstracts are written. Abstracts from foreign journal articles generally contain more detailed information than those journals are more easily accessible. Most abstracting guidelines and published criteria suggest the inclusion of the objective of the document, the method used, the results, and the conclusion. These distinct components are not necessarily present in all documents.

### Types of Abstracts

There are two main types of abstracts found in commercial abstracting services, informative abstracts and indicative or descriptive abstracts. We will also briefly look at a third type the critical abstract or review. The intended use of the original documents often determines the type of abstract written.

1. The informative abstract acts as a substitute for the document. It is a miniature version of the document including the purpose, numerical data, methodologies, formula, conclusions, and recommendations. It is often used for experimental work, and for specific research reports. It presents what has been done. Many abstracting services permit 100 to 500 words for each abstract. [The average is about 250 words.] Writing informative abstracts for reviews and discursive papers on broader subjects is more difficult for many such papers present too many individual and disjoint ideas in the space of a single paper.
2. An indicative abstract describes what a document is about. It does not report on the actual findings. Therefore, it is well suited to state-of-the-art reviews, literary criticism, lengthy texts, descriptive works, and general discussions of a topic. It tends to be shorter than an informative abstract, containing 50 to 100 words. It gives little detail and contains less content than the original document. Indicative abstracts abound in phrases such as "is discussed" or "has been investigated." Since the treatment is more superficial than in an informative abstract, in most cases, an indicative abstract can be written much faster and is less costly to produce than informative abstracts. An indicative abstract is seldom used as a replacement for the original document. Ideally indicative abstracts give the reader ample information as to whether the original document should be read and thus serve as a sophisticated selection aid. [You should also be aware that in the "real world" a single abstract may incorporate indicative and informative elements, depending on the interests of the intended readers. The type of abstract produced is often determined by its intended readers, the publication content, the journal availability, the language accessibility, and the cost of abstract production. Although for the most part, abstracts are noncritical, abstracts have been known to include a section of critical assessment if the subject warranted one. The length of abstracts depends on the policy of the abstracting service and intended utility. Each service sets specific guidelines for their abstractors. Most abstracts are one-fifth to one-twentieth of the length of the original paper.]
3. A third type of abstract is the critical abstract or review in which the abstractor also functions as an evaluator. For indicative and informative abstracts, the abstractor normally functions as an objective reporter; his or her opinions are carefully excluded. For the critical, or evaluative abstract, the abstractor deliberately injects his opinions and analysis. The value of critical abstracts is highly dependent upon the subject competence of the abstractor, much more so than for the other types of abstracts. Abstracting services do not generally permit critical abstracts because the service cannot be allowed space or time for reply to criticism. Critical abstracts are printed in Applied Mechanics Review and Mathematical Reviews.

### INDEXES

An index is a specific kind of tool for finding information. Whether an index is used by a human being or by a machine, its essence is a list of index entries. Each index entry leads to an indexed item somewhere outside the index; for instance, to a record in a database, to a folder in a file drawer, or a book on a library shelf. The entries are in some recognizable order, usually alphabetical. A back-of-the-book index is alphabetical by subject and points to a page number(s) in the work with information about that subject.

HITCHCOCK, ALFRED JOSEPH 14

This entry tells the user that there is information about Alfred Hitchcock on page 14 of the book.

Traditionally, the subject approach to document retrieval is solved by a two-step process. First, each document is analyzed by an indexer according to its subject matter and assigned to one or more concept classes. These concept classes are represented by index terms. In the second step, the indexer chooses the appropriate index terms to represent the concepts identified in the document.

For all practical purposes, subject cataloging is a form of pre-coordinate subject indexing. Subject headings and index terms reflecting the concepts are surrogates for the physical documents. With subject headings, the relationships are established at the time the list is created. However, online catalogs with Boolean search capabilities allow a measure of post-coordinate indexing since the user can specify new relationships by the use of Boolean operators. A file of index terms may thus be arranged, rearranged, manipulated, and searched. As each index term is associated with unique document numbers, documents may be identified. Indexes are not restricted to indexes of subject terms. Index files of authors, titles, report numbers, chemical formulae, and social security numbers may provide other access points if they are useful for retrieval for the users. However, the greatest challenge in document representation is in the creation and maintenance of subject access to documents.

We will look at some of the basic, broad principles behind indexing and then turn to some specifics as to the procedures used in indexing. Subject indexing involves two principal steps:

1. Conceptual analysis -- effective indexing involves deciding what a document is about and how the document is likely to be of interest to a particular group of users. For example, an article may be indexed in several different indexes with different descriptors or terms based on the interests of the targeted group of users. An article on computer imaging of a particular organ of the human body might be indexed in Index Medicus and in the Engineering Index, but the particular aspects of the article brought out in each index would be different. In the Engineering Index the technical aspects of how the computer technology works would be stressed in the terms selected, while in Index Medicus, the medical aspects would be emphasized.
2. Translation -- involves the conversion of the conceptual analysis of a document into a particular set of index terms usually from some form of controlled vocabulary such as a thesaurus or a list of subject headings.

Now, let's step back and consider the actual design of an index.

There are at least ten fundamental decisions which must be made concerning the design of any index or indexing system. These decisions are:

1. Indexable matter -- within the item or collection of items, what portions should be indexed and what portions should be ignored? Indexable matter refers both to the items within a larger body of materials which are to be indexed and also to the portions of those items which are to be considered in the indexing process. For example, if you were compiling an index to a local newspaper, the newspaper itself is obviously the indexable matter, but would you both index national news? [Probably only as it affects something or someone locally] Would you index advertisements? [Maybe for a brand new business or a going out of business sale to date the birth and death of local enterprises] Very often in the case of periodical indexes, the scope of the index will specifically exclude editorials, letters, advertisements, or reviews of other publications. These are just a sample of the kind of "indexable matter" decisions which have to be made before jumping into an indexing project.
2. Symbol or concept indexing -- what should constitute the basis of indexing: symbols (e.g., words or pictures in a text) or concepts. It can be said that machines index symbols and humans index concepts. When a human indexes an item, s/he perceives symbols which trigger concepts in the mind. For example, automatic or computerized methods of indexing such as KWIC indexes are based on the actual words in the text, but a human indexer might convert the words used into "higher level" concepts. For example, if a picture showed a small child apparently moving toward a road with a large truck appearing to be headed right where the child's path will intercept the road, a computer can index the actual elements present, but a person will pick up on the concept of potential danger/tragedy about to happen.
3. Depth or exhaustivity of indexing -- how detailed should the indexing be? What should constitute the unit of indexable matter, the subject matter of the work as a whole (as is done in book cataloging) or by the chapter or

article (as in commonly done with periodical indexes) or by the page (as in back-of-the-book indexes)? On the average, how many indexing terms should be used to describe its contents and provide access to it? [3 per page, 3 per article, 3 per book, etc.?]

4. Specificity of indexing -- How specific should the indexing terminology be in relation to the concepts or symbols indexed? I plan to come back to specificity in just a few minutes.
5. Indexing vocabulary -- Should the terms used for index entries be controlled and uniform, or should they be unregulated (left free to reflect the terms used in or by the indexed item or freely chosen by the indexer? In either case, should relations among concepts represented by terms be indicated (e.g., synonymy, genus/species, whole/part, object/operation/agent, or other associations)? Again, we will come back to indexing vocabulary in a few minutes.
6. Surrogation -- How should the indexed item be represented in the index? (how much information is given, what kind of information and in what format?) An index entry must include a description of and reference to the passage, document, thing, person, or organization indicated by the entry. For example, a cataloging record is a surrogate of the entire item being cataloged. An entry in Library Literature is a surrogate for the entire article. The user must have enough information to decide if the item is what is needed and the information necessary to get to the actual item.
7. Record Structure -- How and to what extent should the record representing the indexed items be structured? Structure effects how the files can be searched. Every identifiable element potentially can be searched separately, or in combination with other elements. In order to actually make the specific search, not only must the record structure make each of the elements identifiable, but the searching software must accommodate the search. Search options in an online catalog may be limited not because the MARC records lack structure, but because only a few search options are built into the searching software.
8. Record Display -- How should the record representing the indexed item be displayed in online media? In printed media? (individual record item as opposed to a file display)
9. File Structure -- Direct file or inverted file structure? In machine-readable files, file structure refers to the way the file is arranged within the computer's storage and memory areas. A "direct" file consists of a sequence of item records, one for each indexed item. The sequence may be random or in a meaningful order. The "inverted" file structure involves at least two files, a direct file for the item records and an inverted file for the searchable terms.
10. File Display -- How should files be structured for online access? How should the results of online searches be displayed? How should files be arranged and displayed for print media access? What determines the order on the screen -- alphabetical order (which rules?) or chronological order (earliest records or latest records displayed first?) or a weighted scheme (attempt to show most relevant items first)?

When a system is evaluated, performance is often expressed in terms of recall (the ability to retrieve useful items) and precision (the ability to avoid useless ones). It is important to select an indexing vocabulary which is more likely to produce the degree of recall and precision desired. Both of these commonly known performance measure have evolved from intensive retrieval testing in the past. The prevailing hypothesis in the 1960s was that indexing language held the key to retrieval performance. Researchers experimented extensively with various indexing languages and several factors in indexing. Several factors in indexing and indexing language were found to exert substantial influences on retrieval. Three important concepts were specificity, exhaustivity, and depth of indexing. Specificity was and is a characteristic of the indexing language. Both exhaustivity and depth of indexing are determined by indexing policy decisions. Each concept is linked with the recall and precision of the indexing language used.

## INFLUENCE ON RETRIEVAL:

### 1. **SPECIFICITY**

In terms of retrieval performance, precision is the percentage of relevant documents contained in the retrieved set. With highly specific index terms, each retrieval set tends to contain highly relevant documents. That is, the precision of the retrieval system increases. Conversely, with a less specific index language, each index term would cover a larger topical domain, not all of which terms are related to the specific area needed. The retrieved set would be larger, and more nonrelevant or marginally relevant documents would be included. Precision of the system suffers. At the same time, as many more documents of less relevance are retrieved, some of these documents may contain information of

pertinence to the topic sought. Specificity of the indexing language is the single most important factor affecting search precision. More generic indexing results in retrieval of greater numbers of items (higher recall).

Obviously, specificity of an index language or thesaurus is determined when the vocabulary is constructed. Once the choice of the vocabulary is determined for the retrieval system, little can be done to change the specificity of the language. Therefore, to begin an indexing project, the choice of an indexing language with the desired level of specificity is an important consideration. It is a challenge to determine exactly how specific the vocabulary needs to be. For most individuals who come to indexing projects after a vocabulary has been in use for some time, there is no easy way to remedy an indexing language with low specificity without a major overhaul and retrospective indexing.

## 2. EXHAUSTIVITY

Indexing exhaustiveness is also a major consideration in terms of recall and precision. Each index term serves as a tag for a theme or concept in the document. If every facet of a paper were indexed and as many as 30 index terms were used to represent the paper, then a search with any one of the index terms would be able to retrieve the paper. Clearly with indexing exhaustivity, a high probability exists that most of the relevant papers as represented by the index term would be retrieved. Exhaustive indexing does insure high recall.

Obviously the treatment of the topic as reflected by the index term in some of the retrieved documents may be less important to the document. Some may even be highly peripheral. If only highly relevant documents on that topic are needed, use of a particular term as a search term would retrieve many papers with only minor mention of the sought topic. High recall from exhaustive indexing often results at the expense of scanning many marginally relevant documents.

Generally, the degree of indexing exhaustivity is proportional to the number of index terms assigned per document. However, depending on the type of publications indexed, it is not a necessary condition. A paper may deal with two or three concepts so that exhaustive indexing could only produce a few index terms for the paper. Suppose a paper represent five different concepts. It is conceivable to index exhaustivity different aspects of three of the five themes with many terms and ignore the other two. In cases of this kind, the number of index terms assigned is not an accurate indicator of the degree of indexing exhaustivity. Therefore, it may be misleading to measure indexing exhaustivity by the average number of terms assigned per document.

## 3. DENSITY OF INDEXING

Often the phrase density of indexing is used interchangeably with indexing exhaustivity. It is a measure of the average number of index terms selected to represent each document. Density of indexing is purely an estimate of exhaustivity. In lieu of indexing exhaustivity, which is hard to do, a more pragmatic measure has been devised. It is believed that although they are not equivalent, experienced indexers can achieve a desired degree of exhaustivity given an upper limit of the number of index terms allowed. Studies have shown that an average of 70 to 80 percent of the total relevant documents in the file can be retrieved if ten terms are assigned for each document. On the other hand, a diminishing return is noted in experiments in which the indexer is asked to assign many more terms. A much greater effort is required to retrieve the last 10 percent of the remaining relevant documents in the file. By assigning an additional 40 to 50 terms per document, 90 percent recall may be achieved. Therefore, a much greater amount of effort must be expended to improve the recall to 90 percent. By requiring many more terms from the indexer, a substantially lowered cost effectiveness is evident.

## INDEXING METHODS AND PROCEDURES

The best way to learn how to index a book or a document is to study existing indexes and to use them at length. Indexing is more of an art than a formal, documented procedure such as descriptive cataloging. Although indexes vary widely in their characteristics and quality, a person who examines and uses indexes will gradually learn what an ideal index should be like.

Good indexing is not a casual clerical job. It is the result of professional activity carried out by people with proper training and experience. We will discuss today some of the procedures and techniques, worked out over the years, that can be learned and followed.

## INDEXING PROCESS

Any indexing involves at least three steps or stages:

FAMILIARIZATION > ANALYSIS > CONVERSION OF CONCEPTS TO INDEX TERMS

The first step towards a successful index or set of search keys is familiarization. The indexer must become conversant with the subject content of the document. In order to achieve good consistent indexing the indexer must have a thorough appreciation of the structure of the subject and the nature of the contribution that the document makes to the advancement of knowledge. The other aspect of the familiarization process is with the particular document itself. To do this a combination of reading and skimming is usually advocated. The parts to be carefully read will be those most likely to tell the most about the contents of the document in the shortest period of time: the title, abstract, summary, and conclusion. Section headings and captions to illustrations or table are also worth attention. If the particular document happens to have a table of contents, it will also be useful.

The indexer is now ready for the analysis of the document, the second stage prior to index term selection. Depending upon the particular indexing situation, the first step might be to decide whether or not the document is worth indexing based on the material read/skinned during the familiarization step. If it is judged worthy of being indexed, for any document other than a self-contained book index, the correct bibliographical data according to a consistent format is recorded. Care must be taken to ensure that data is recorded accurately, for the obvious reason that incorrect entries cause the document to become inaccessible. Next a decision as to what parts of the document will be indexed and what parts will be skipped over is made. The human analysis of a document and decisions concerning which subjects are sufficiently significant for indexing is difficult to codify. Some features of the process can be specified, but others rely to a large extent upon experience and intuition. Some topics in documents represent the main theme of the document. Main themes obviously must be represented in indexing, but to what extent need minor or secondary themes be indexed? Some of the subject facets of a document will obviously be basic to the needs of the index users, some will be of marginal interest, and some will be of no importance. Sometimes guidelines are provided that may go some way toward instructing indexers in consistent identification of concepts. Other times it is strictly a judgment call to be made by the indexer, taking into account the needs of the specific organization and patrons. As these decisions are being made, indexers jot down the concepts, either using words directly out of the text or drawing on their own vocabulary or combination of both.

Where are some good places to look for subject concepts?

1. Title -- assuming the title is indicative of the document's contents.
2. Abstract -- good abstracts are fundamental indicators of subject content. Most of the words in the abstract should heavily convey subject content.
3. Text itself -- Introduction, summary, and conclusions should be consulted. Section headings should be noted along with the first and possibly last sentences of paragraphs since these sentences often carry the message of the paragraph. Note charts, and other illustrative material, methodology, historical and theoretical background. Knowing what to read and what to skim comes from experience.

The third step involves selection of index terms to match the concepts. (Of course, experienced indexers may merge steps 2 and 3.) This conversion process will differ depending upon the specific type of indexing language used. Some systems use a controlled vocabulary so that an indexer must use a thesaurus to choose index terms. At the other extreme are systems which use free indexing languages which means that any word or term that suits the subject may be assigned as an indexing term.

A variation of free indexing languages is natural language indexing that uses the language of the document. Most natural language indexing is concerned with machine assignment of terms, and is based upon the language of titles and abstracts. Selection is simple and there is no need for scanning and analysis of documents. There is still active debate as to whether natural language indexing leads to effective retrieval.

## LIMITATIONS OF TERM INDEXING

Unfortunately, despite the dominance of human indexing (as opposed to automatic or machine indexing), very little is known about the intellectual task of indexing. Over the years, there have been numerous studies on various aspects of indexing. At one time, the quality of indexing was thought to be the dominant factor influencing the retrieval performance of information retrieval systems. Despite intensive investigation of how one indexes, very little insight has been gained as to how one transforms text content into index entries. In fact, indexing manuals often avoid the issue entirely.

Although the understanding of the process of indexing is lacking, serious defects in this approach are well known. Problems such as inter-indexer consistency have been documented, i.e. different indexers tend not to index with the same index terms. Often to aid in retrieval, index terms in online systems are also supplemented by keywords found in titles and abstracts. In recent years, many full-text retrieval systems have been developed in which little or no human indexing is needed. Each document is automatically indexed by every nontrivial word in the text or title or abstract. A few systems even allow weighting of index terms to further aid retrieval.

### Professional Societies: American Society of Indexers

For those of you considering indexing as a major part of your professional career, there is a professional society called the American Society of Indexers, that you may be interested in joining in the future. The society was founded in 1968 and at that time affiliated with the [British] Society of Indexers, and, thus, shared its journal, *The Indexer* until 1998.

Ten years after the founding of ASI, the H. W. Wilson Co. established an annual award for excellence in indexing, which is administered by ASI. A monetary award is given to the compiler of the best index to a monograph, and a certificate goes to the publisher. The criteria for this award constitute an important standard for the evaluation of book indexes.

The international journal *The Indexer* is not a journal of indexing research -- articles of that nature are more likely to appear in the *Journal of the American Society for Information Science (JASIS)*. Rather, it contains state-of-the-art reviews on computer-assisted indexing, descriptions of indexing projects, think pieces, as well as a humorous column that excerpts comments on indexes from book reviews.

One of the main purposes of the Society is to convey the importance of quality indexing. To this end, ASI produces brochures with index evaluation checklists, exhibits at publishing conferences and distributes complimentary copies of its annual *Register of Indexers*.

Indexing has recently been profiled in several publications as a "work-at-home" career which has generated publicity for ASI. ASI members are predominantly self-employed and create indexes mainly to monographic publications.

Other professional societies to which information professionals belong who are interested in indexing and abstracting are: ASIS, particularly to the Classification Research SIG; ALA Association for Library Collections and Technical Services (ALCTS) [differences between cataloging and indexing essentially being one of degree of analysis]; National Association of Abstracting and Information Services (NFAIS) [an organization of primarily corporate members who are database producers]; and the Special Libraries Association [indexing rather than full blown cataloging is often utilized by special libraries].

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	234	document and replac\$3 and (document adj (extract or abstract or summary))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/08/01 14:09
L2	9	document same replac\$3 same (document adj (extract or abstract or summary))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/08/01 14:17
L3	152	((creat\$4 or compil\$6 or gather\$3 or assembl\$4) with (database\$1 or data adj (store\$1 or base\$1 or repositor\$3 or warehouse\$1))) and (document adj (extract or abstract or summary))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/08/01 14:19
L4	2	((creat\$4 or compil\$6 or gather\$3 or assembl\$4) with (database\$1 or data adj (store\$1 or base\$1 or repositor\$3 or warehouse\$1))) with (document adj (extract or abstract or summary))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/08/01 14:24
L5	14	((sav\$3 or stor\$3) with (database\$1 or data adj (store\$1 or base\$1 or repositor\$3 or warehouse\$1))) with (document adj (extract or abstract or summary))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/08/01 14:27
L6	95	(sav\$3 or stor\$3) with (document adj (extract or abstract or summary))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/08/01 14:30
L7	13	((sav\$3 or stor\$3) and (conver\$4 or creat\$3)) with (document adj (extract or abstract or summary))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/08/01 14:36
L8	13	((conver\$4 or creat\$3) with (document adj (extract or abstract or summary))) and ((sav\$3 or stor\$3) with (document adj (extract or abstract or summary)))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/08/01 14:56
L9	1	document adj abstracting	EPO; DERWENT; IBM_TDB	OR	OFF	2005/08/01 14:57